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*Visions of the Emerald Beyond*¹

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Every two years René Stettler, director of the Neue Galerie of Lucerne, organizes a symposium at the Lucerne Theatre for scientists, philosophers, and artists to present and discuss their approaches on a special topic of interest to the general public. These events give space and time to interdisciplinary discussion, and the New Gallery sees itself as inducing series of experiments, creating as it were a series of 'laboratory situations', with varying mixtures of ideas and theories, for a public of between four and five hundred people. This year's laboratory was labelled 'Space, Time and Beyond' and led deep into the realms of the Beyond.

I was invited to chair Benny Shanon's lecture on 'The Antipodes of the Mind', a conception *inter alia* revealed in sessions with the Amazonian shaman's drug Ayahuasca. The term 'antipodes of the mind' had already excited my cognitive capacity while making preparations for the congress, and I started to associate or bisociate (in the sense of Arthur Koestler) and to connect the antipodes to my concept of oppositions on the mytho-cultural level (see below) of codification. I did the same with the other suspense-packed lectures and purpose here to review them from my own processual 'floating standpoint' as semiotician and anthropologist. Thus this report is rather an essay on my impressions that also draws on the discussions I had with the lecturers, visitors, René Stettler and sponsors, as well as my own thoughts and ideas.

Just after the symposium NASA released what it called the best 'baby picture' of the Universe ever taken, by scientists using the Wilkinson Microwave Anisotropy Probe (WMAP). They found that the contents of the Universe include only 4% atoms (ordinary matter, stars, planets, water, plants, animals, our bodies etc.), 23% being of an unknown type of dark matter, and 73% a mysterious dark energy. The composition of this remaining 96% of the universe is unknown,

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[1] 'Visions of the Emerald Beyond', Title by John McLaughlin and the Mahavishnu Orchestra, 1974, CD Sony 1991.

beyond material, as yet resisting further explanation. Are the 4% ordinary matter perhaps those ‘Islands of Tonal’ immersed in a vast ‘Ocean of Nagual’, as the shaman Don Juan once explained to the anthropologist Carlos Castaneda? Will we find there the roots of consciousness itself? Is this the realm of gods, dreams, contemplation, synchronicities and drug experiences? Are the possibilities for star gates, artificial wormholes and time travels situated there? Is this dark ‘Nagual’ beyond the walls of recent measurement in the physical sense perhaps to be explained as some kind of macro quantum vacuum state?

For centuries the Beyond had been the domain of shamans, myths, religions, philosophy, arts — and latterly of psychology — which served and tried to satisfy the more subjective parts and absolute questions of our existence. The hard sciences occupied the other, objective half, and from this point of view the universe looked like a clockwork orange, with stolid mechanics irrevocably working underneath and above an apparently vivid skin. But about 1925 physicists discovered that their ‘particles’ were no billiard balls at all, no marbles with only physical qualities, but had a wavelike aspect as well. This was the birth of quantum theory and the physical conception of the dualism between the objective particle and the subjective wave.

Werner Heisenberg suggested that the older theory could be rescued by converting ‘numbers’ to ‘actions’. However, this revision effectively changed the location of every particle to a cloud-like structure: the motion of each particle, and also the motion of the centre of every visible object, was described no longer by a simple trajectory in space and time, but instead by an evolving cloud that tended to expand to a size that could extend over meters, or kilometres, or more, in conflict with experience. This difficulty was resolved by introducing into physics the concept of ‘participant observation’ of ethnological fieldwork. Thus also in physics an associated dynamical process that was governed by these ‘observing’ but also ‘narrative’ agents, was thought as imperative.

This process, which functions as a top-down action of the agent’s mind upon his brain or any other ‘object’ of observation, measurement or reasoning, is not controlled, even in principle, by any yet-known law of physics, as Henry P. Stapp explained. But with this proximity to the subjective half of the universe physicists had to learn to deal with the existential questions of religion, anthropology, philosophy, psychology, cognition, narration, etc. They tried to get out of, explain and master these uncertainties with their well compiled tool box of mathematics and empirical research: they built accelerators, shot probes and telescopes into the space and calculated the data to get into the heart of the matter, bringing light into the heart of darkness of cosmos and consciousness.

According to Stapp’s Lucerne lecture the most profound revision of the basic and classical principles of physics was to bring the consciousness of human beings into the basic structure of the theory. Stapp concludes: ‘Indeed, the whole *conception of what science is* was turned inside out. The core idea of classical physics was to describe the “world out there”, with no reference to “our thoughts in here”. But the core idea of quantum mechanics is to describe *our activities as knowledge-seeking human agents*, and the knowledge that we thereby acquire.

Thus quantum theory involves, basically, what is “in here”, not just what is “out there”.’

Is this ‘in here’ suggestive of the quantum cat imprisoned in that black box (or quantum state) of Erwin Schrödinger’s gedankenexperiment, presented in the 1920s? Where we cannot really say what the cat — whether dead, alive or both — is doing in there, until we lift the cover, bringing light into that darkness? But with any light bringing ‘action of measurement’ we influence the virtual quantum states, bringing the cat’s eigenstates to an end and find it as a dead or living object of measurement. But if we do not open that Pandora’s box we are nevertheless influenced by those unknown quantum states, that take shape as ‘ordinary matter’, as our observed, measured, theoretical and material reality.

In his lecture Basil J. Hiley, co-author with David Bohm of *The Undivided Universe*, implied ‘that the arena upon which we build our physics cannot be the continuum that we traditionally use. Furthermore the grossly macroscopic non-local quantum effects already clearly demonstrated by a range of experiments demand that we call into question the notion of an absolute locality and hence the primacy of local space–time.’

According to Hiley we have to learn to think in terms of ‘activity’ and ‘process’, not of the action of a subject but of its ‘doing’. In a world of activity the order of action and facts is crucial and tautological, because just this ‘activity’ leads us to abstract our notions of space and time. But this does not mean, that they are primary concepts, it means, that they are derivations of a processual ‘pre-space’ and even a ‘pre-time’.

From structural studies in mythology we know, that our anthropoid ancestors escaped the prehistoric semidarkness of ‘pre-space’ and ‘pre-time’ via a primordial dreamtime type of codification by certain mythological operations of inversion, that added a cognitive skeleton or frame to the diffuse ‘objective’ backgrounds that later enabled elaborated derivations and concepts like space, time, fact and reality. But these concepts stay interactively and processually interwoven with the primordial, non-local or quantum states.

In his contribution David Ritz Finkelstein doubted the concept of the particle itself and noticed, that ‘the fusion of space–time and quantum theory requires a reformation in physics just as radical as relativity and quantum theory. Such reformations make physics simpler and more beautiful by relativizing former absolutes, idols like classical time and truth’ and prognosticated new insights, that will ‘resolve the continuum into a network of elementary quantum processes like spins in a cosmic quantum computer’.

This quantum complementarity ultimately implies the relativity of all constructs, and ‘therefore ‘the final theory’ is not a meaningful goal for physics, any more than ‘the final painting’ is for art. As adaptive response to a creative universe, as a part of life, the process of physics is a meaningful goal in itself.’

This approach reminds me of the opposite pairs of dreamtype and cultural codification and semiotic processes (semioses), that are thought as complementary and exclusive at the same ‘time’. They are results of and processes itself, and induce and generate further processes as bifurcative twin-like ‘processual

archetypes'. These archetypes can be seen as 'reformations' in the sense of Finkelstein, that 'create new absolutes as they relativize old ones'. This way we can interpret the universe as a narrative process, as an eternal semiosis with textual snapshots or eternal makeshifts, like 'realities', behaviours, societies, mythologies, religions, scientific theories, works of art, philosophies and literature now and then.

The narrative universe is an evolving universe. Ruth Durrer explained the evolution of our universe and showed that it never has been an invariable place with constant objects or rules, but with steadily changing conditions from the very beginning.

Matt Visser devoted his lecture to the possible construction of artificial wormholes to be used for building star gates or time machines: 'Whenever space is linked to itself in a nontrivial way, giving you a "shortcut" from "here" to "there" we call it a wormhole. Whenever time is linked to itself in a nontrivial way, giving you a route from "now" to "elsewhen" we call it a time machine.' According to Visser the construction of wormholes or star gates is a mathematical possibility, although today we lack the technology to realize such a device, whereas a time machine will stay an impossibility, restricted to narrative fantasy, movies and science-fiction novels.

But who knows in what direction an active and re-active and/or processing universe will evolve? Is the 'time protection' part of a strong anthropic principle that supposes the universe is exactly the way we need it? And, if so, in what form we 'really' need the universe? If we recall that mankind lived almost 95% of its history in dreamtime and mythological time and codification, what then is a strong anthropic principle?

To get rid of anthropocentric illusions and to reach a weak anthropic principle, ground or level step by step has been the aim of Buddhist contemplatives for 2500 years as Alan Wallace described: 'In the experience of deep meditative equipoise the mind is voided of all mental activity such as thoughts and imagery, creating a type of vacuum state of consciousness. Such a state is known in Theravada Buddhism as the "ground of becoming" (bhavanga), and in the Tibetan Buddhist tradition of Dzogchen it is called the "substrate consciousness" (alayavijñana) . . . Tibetan Buddhist contemplatives claim to have penetrated beyond this relative, or false, vacuum state to a deeper reality known as the absolute space of phenomena (dharmadhātu).'

While the 'substrate consciousness' plays the role of the cognitive ground of one's individual existence, the 'absolute space of phenomena' is experienced as the ground of the whole of existence. In this 'beyond' all conceptual constructs are transcended and an emptiness of any internal structure turns up. This is the primordial ground out of which relative space and time, mind and matter, this is the entire phenomenal world, emerge.

Alan Wallace concluded that the Buddhist description of the false vacuum of the substrate consciousness and the true vacuum of absolute space of phenomena is remarkably analogous to contemporary theories in physics pertaining to the false and true vacuums of physical space.

This ‘absolute space’ can be represented as some kind of mandala with a symmetrical geometry, like an object or emerald beyond the phenomenal world. It would mark the end of all asymmetric, oppository or complementary codification; it would be the beginning and end of any narration, or quite simply ‘time’.

But also in this model space–time and quantum theory remain lying on opposite sides of the interface between the experimental system and the experimenter, the brain and the mind, the ‘ethnos’ and the anthropologist, the profane world and the contemplative. David Finkelstein pointed out, that ‘we must shift this interface to unify them; we introduce a metaphoric extra-cosmic quantum experimenter. This also introduces a higher-order quantum logic, in which laws of one level are quantum variables of the next.’

If we interpret ‘law’ as the actualized, coded or stabilising reproductive information of certain levels of codification, and the on each successive level ‘higher-order quantum logic’ as ‘potential information’, then we gain a model of ‘narrative evolution’, similar to that one used in certain semiotic approaches. The ‘metaphoric extra-cosmic quantum experimenter’ would be something like a final cause in the sense of Aristotle or, so to say, our selves in the future. This new higher-order quantum need not inevitably act as analogous to those non-local and symmetric micro quantum states physicists or perhaps contemplatives so far studied, but could be of a very different, a new quality, possibly some kind of macro quantum state Basil Hiley imagined.

Symmetrizations are ‘saturated states’ and show that the coded structure — to which the symmetrized quantum state as ‘horizon of expectation’ or final cause belongs — has no possibility or intention for evolution. These symmetrizations for instance are vitally important to keep the internal organisation of our bodies — to allow actions and re-actions within the different levels of codes — coherent, but they are detrimental to all creative processes.

Humans, as I suppose, emerged within the dreams of apelike ancestors. These dreams and the following myths are the missing links that connect us to the animal kingdom as well as to the realms of mind and spirit. In this view we are the final causes or ‘realized quantum’ states of those ancestors. But what do our own macro quantum states, our beyond, look like?

Not only primates and humans dream, but also all higher mammals own this capacity, and they live this way simultaneously on two different layers of ‘time’. Peter Beamish presented a model explaining the codification of these interwoven but independent systems and to introduce a new ‘concept category’ for a human percept of time. Beamish distinguishes between a more ‘linear time’ or ‘conventional time’ and a ‘cyclical time’ or ‘rhythm based time’, that is ‘defined as one’s perception of lateness relative to synchronization’. This concept, introduced for the first time by Hitoshi Kitada, represents mental functions, their kind of mapping and decomposing ‘relativistic’ waveforms into quantum mechanical particles, and the transformation of mass/energy quanta into new qualia of quanta and a new kind of ‘information’.

Both, conventional time ‘ct’ and Rhythm Based Time/KitadaTime ‘KT’ are scalar ‘Readings on a Clock’, as Peter Beamish explained: ‘It requires the mind

of a living organism to associate said readings with mass/energy vectors and thence produce: “ct-vectors”, and/or “KT-vectors”.’

These clocks are similar to compasses and enable certain kinds of topologies and topographies of inner and outer spaces in order to perceive and move within an environment and to communicate and share ‘information’ and to synchronize the clocks and the rhythms of life with other individuals. This interpretation implies a change of strategies, a change from concepts of ‘evolution’ to those of ‘altruism’. Peter Beamish took whale populations as examples for altruistic and synchronized forms of life and criticised the asynchronization of human individuals and societies and their antisocial and ruthless struggle for survival, fitness, fame and eternal progress.

Here the question arises: how did the asynchronization of human beings come into the world? I suppose that this development is entailed with the conscious rediscovering of linear time, the introduction of powerful church tower clocks and the discoveries of the early natural sciences in the ‘world out there’ Henry Stapp described before. Linear time could be measured on the basis of the seasons, the movements of the big celestial bodies and biological decay, that could be used to ordinate and co-ordinate behaviour of individuals, groups, etc., in time and space. In the long run rhythm based or complex time fell into oblivion and only remained in unconscious dreams.

Today linear time is measured by means of the decay periods of elements used in atomic reference clocks, as entropy, etc. The emergence of those local signals or elements out of a primordial non-local ‘quantum state’ gave birth to linear, local or relative time. Complex, rhythm based time or dreamtime emerges during the run of evolution within the increasingly complex codification of inner spaces (starting with procarionts, eucarionts, etc.) and eventually developing the bodies, brains and minds of social mammals at the latest. There the capacity to dream means a progressive virtualization of the interior, which needs other forms of organization than the objects of the ‘world out there’ or simple life forms. If we assume, that whales and other social mammals did not add a frame or skeleton to their dreams, then we start to understand why their solution could be a modus of symmetrization in order to prevent dissipation.

But also the organization of dreams as coded structures in form of myths, poetry, dances, arts, etc., know rhythms, rites, rhymes and repetitive individual and collective behaviour of all kinds. Shamans were early specialists in dealing with the realms of Stapp’s ‘in there’, soon densely populated with spirits, ghosts, souls, ancestors, alien landscapes, religious and philosophical concepts, extraterrestrial, etc., beings of all sorts, reaching the state of a second — and later by sciences rationalized — reality, whose emergent forms Peter Beamish explores.

Benny Shanon dedicated his lecture those alien landscapes and reported on his experiences and research on Ayahuasca, a powerful, plant-made psychotropic brew. Ayahuasca has been central in the traditional indigenous tribal cultures of the upper Amazonian region and is in use by shamans today. Already in the 1970s Dennis and Terrence McKenna introduced Ayahuasca to Western societies and imparted their experiences and visions about the exponential accelerating

development towards an end of the world we know and a birth of a new world or narration to a broader public. Shanon's approach is more phenomenological, and the goal of his research is to draw a systematic chart of the effects of the 'antipodes of the mind' revealing brew and to offer a theoretical psychological account thereof. Benny Shanon: 'The antipodes of the mind reveal a geography that is much more amazing, much more wondrous than most, if not all, contemporary cognitive scientists seem to surmise.'

Already the McKenna brothers spoke about a 'hidden landscape', supposing that drugs and inner landscapes played cardinal roles as triggers in the evolution of mankind. And Luis Eduardo Luna adds that there are still people that 'travel to places Western technology will never reach — to the realm of the spirits, a world accepting modern wonders but encompassing the past and the future as well.'

The discovery of this 'second reality' within cultural evolution made it possible to reverse time, to travel in no time, to move back or forward in time, to cut time, to visit distant places in space or on earth, to shift shape, to visit the beyond, to contact spirits, etc. With the development of arts, literature, technology, cinematography and computer technology, the twentieth century brought these 'shamanic capacities' and possibilities anew to a broad public in a progressive materialistic world, that increasingly doubted the prescribed locations by means of 'supernatural' insights and experiences.

By using advanced computer technologies the artist Char Davies created 'immersive virtual spaces', that opened these possibilities to new dimensions of experience. Char Davies: 'By "immersion" or "immersive virtual space" I mean immersion in a 360-degree spherically-enveloping virtual environment, in my opinion possible at the present time only through use of HMDs (head-mounted displays) with wide fields of view.'

Today only HMDs allow full-body immersions into virtual spaces, and Char Davies demonstrated the virtual worlds 'Osmose' and 'Ephemere', her most recent attempts 'to distill and amplify the sensations and emotions of being conscious, embodied and mortal, i.e. how it feels to be alive here now among all this, immersed in the vast, multi-channelled flow of life through space and time'.

In contrast to stimulating the 'supernatural', Davie's aim is not to project artificial worlds, but to remind people of their connection to the natural (rather than man-made) environment not only biologically, but spiritually and psychologically, as regenerative source and mythological ground. This way she tries to invert the means of technology and to short-circuit post-modern relativity. But here the question arises, whether we are not again trapped within a type of cultural reconstructivism, i.e. the medial illusion of nature and absoluteness, that cannot concern the primary nature human beings once escaped: these fascinating virtual environments are 'entities' of a second reality.

Michael Snow started his lecture on the assumption that we humans have lived within an increasingly dense construct of representation since the arrival of speech/language. Already the linguist Ferdinand de Saussure spoke about 'langue et parole' or 'language and speech', i.e. the difference between 'code' and 'information'/'communication' or text. The 'code' often means from

‘above’ or social upper and influential classes constituted and implemented myths, images and significations. The means of photography, film, sound technology, video and, in the last 20 years, computer technology have contributed to an intense environment of images and signs. This ‘narrative sovereignty’ shows itself in the play with ‘fact’ and ‘fiction’ and has become a more important means than ever. In addition to its unprecedented manipulatability, Digital Technology claims that every representation is ‘identical’. Michael Snow: ‘A common area is our “reading” of fiction films. We are convinced by the “realism” of the images but must experience a “suspension of disbelief” in order to laugh and cry with the protagonists who demonstrably, are not there. What are they?’

In my opinion they are codes (language), settled in those alien landscapes of aforesaid second reality to control the ‘real’ social contexts (speech). Within the movies and cyberspaces those codes do not ‘live’ like the entities Benny Shanon and others experienced, but they are intentional implemented by the producers of these spaces, signs and texts, and thus often lead to crooked and ridiculous forms. Here the question arises, how art could survive in such a context, and Michael Snow concluded: ‘Defining “art” has become increasingly difficult. My efforts as an artist have been, partly, to use new tools to, hopefully, make new experiences that continue the ancient values of ‘art’. In my opinion this has little to do with ‘information’. Related to all of this is another question: what is ‘imagination’?’

Proceeding on the assumption that ‘imagination’ and ‘art’ are individual, interpretative, emergent and creative processes, they cannot be ‘informed’, ‘constituted’ or ‘imprinted’ by any ‘upper class’ of sign producers. New experiences and approaches emerge, and the ‘ancient values’ of art stand against any spoonfed powerful reality.

The symposium found its final climax at a poetry slam, where Michael Snow demonstrated his dadaistic and surrealistic deconstructions of speech/language/representation, i.e. the attempt to resurrect the original language or code/text as a new emergent and narrative starting point beyond the rules of current space-time, accompanied by the final or first laughter of art. Was this a glimpse at the true emerald beyond?

Endophysicist Otto E. Rössler, philosopher Josef Mitterer and the author of this report, who were invited as chairmen, frequently induced controversial discussions among the scientists, artists and philosophers, but Pilate’s question remained: What is truth? Perhaps our only — and universal — truth is narration; that is the transformation of the absolute ‘emerald beyond’ (and the *divide et impera*) into liquid forms, according to the old alchemist motto: *solve et coagula*.